INDEX TO TECHNICAL MATERIAL

CORROSION

VOLUME 5

JAN. 1-DEC. 31

1949

CONTENTS

Contents Pages by Months
Technical Committee Activities
Technical Practices Committee Reports
Correlating Committee on Cathodic Protection
Titles, Alphabetically by First Indicative Word
Authors, Alphabetically
Corrosion Abstracts, Subjects, by Months, Pages

PAGE NUMBERS BY MONTHS

PAGES	
1- 37	January
39- 59	February
71- 98	March
101-134	April
135-168	May
169-201	June
203-244	July
245-271	August
273-313	September
315-354	October
355-377	November
379-450	December

CONTENTS PAGES BY MONTHS

January

Page

Behavior of Hydrogen in Steel During and After Immersion in Acid
By Lawrence S. Darken and Rodney P. Smith 1

Cathodic Protection Applied to Gas and Electric Utility Operations
By William J. Schreiner 17

Experience at Bagnell Dam to Prevent Corrosion of Underwater Steel and Iron
By Turner White, Jr. 25

Corrosion Problems in Water Wells
By T. E. Larson 27

Attenuation Equations Applied to Cathodic Protection by Distributed Drainage
By E. P. Doremus, G. L. Doremus and M. E. Parker, Jr. 32

Aluminum Valve Construction
By R. McFarland (Topic of the Month) 37

February

Galvanic Action Between Lead, Worthite and Other Acid-Resistant Alloys in Sulfuric Acid
By W. E. Pratt and E. T. Collinsworth, Jr. 39

A Geographic Study of Deposits and Corrosion
By Dr. F. N. Alquist 45

Discussion on "Selected Bibliography on Salt Spray Testing"
By Lorraine R. Voigt, L. M. Flaherty 54

Errata: "Punched Cards for Filing Corrosion Test Results"
By Lorraine R. Voigt, Corrosion, Dec., 1948 54

Organic Linings for Chemical Equipment
By Kenneth Tator 55

Mitigation of Corrosion on City Gas Distribution Systems
By A. D. Simpson, Jr. 59

March

Unusual Corrosion in High Pressure Boilers
By S. T. Powell and R. G. Von Lossberg 71

A Cooperative Approach to Electrolysis Problems
By Russell M. Lawall 79

Galvanic Corrosion in Oil and Gas Well Fluids
By F. L. LaQue 86

Protective Films—Natural Formation on Aluminum and Its Alloys
By F. A. Champion 92

Combating Corrosion with Rubber Lining
By R. McFarland (Topic of the Month) 98

April

Effect of Various Aqueous Solutions Upon the Reactions at Pure Iron Anodes and Cathodes—Part I
By W. W. Kittleberger and A. C. Elm 101

Marine Fouling and Boring Organisms, With Some Material on Corrosion
By J. L. Baughman 113

Corrosion, Passivity and Passivation from the Thermodynamic Point of View
By M. Pourbaix 121

Errata: "Bearing Corrosion in Turbo-Generators" 133

Corrosion of Base Metal Contact Surfaces in the Telephone System
(Anonymous) (Topic of the Month) 134

May

Page

Crude Still Overhead System Corrosion
By A. F. Blumer 135

Building Organic Protective Coatings to Special Requirements
By K. G. Compton 148

A Case of Corrosion Involving Cinders
By C. H. Thompson 151

Effect of Various Aqueous Solutions Upon the Reactions at Pure Iron Anodes and Cathodes—Part II
By W. W. Kittelberger and A. C. Elm 155

Errata: By W. W. Kittelberger and A. C. Elm 200

Corrosion in Sour Crude Storage Tanks
By Derk Holsteyn (Topic of the Month) 168

June

Why Metals Corrode
By Dr. H. H. Uhlig 169
Discussion: Norman Hackerman, Lyle R. Sheppard, W. F. Gross, Page 352

Electrochemical Studies on Insulating Couplings For Underground Pipe and Cable Lines
By Dr. W. Beck 175

Corrosion Problems in a Fluid Catalytic Cracking and Fractionating Unit
By Nathan Schofer 182

Erosion-Corrosion of Metals and Alloys
By M. G. Fontana and W. A. Luce 189
Discussion: Harris Thompson, H. H. Bennett, James R. Harrison, Lewis P. Aker, H. O. Teeple, Page 376

Corrosion of Telephone Outside Plant Material
By K. C. Compton and A. Mendizza 194
Discussion: C. J. Couy, Page 350; J. M. Standring, Page 377

Methods for Prevention of Rust in Water Tanks—A Preliminary Report
By Fred Schumann 198
Discussion: J. L. Gilliland, Jr., Page 310

Errata: "Effect of Various Aqueous Solutions Upon The Reactions at Pure Iron Anodes and Cathodes"
By W. W. Kittelberger and A. C. Elm 200

Protection for Ship Hulls
By L. M. Mosher (Topic of the Month) 201

July

Corrosion Research in the Navy
By Julius J. Harwood and Fred Schulman 203

Special Anodes for the Cathodic Protection of Water Tanks
By A. L. Kimmel 217

Development of Pipe Line Coatings and Mechanical Application Methods
By Stephen D. Day 221

High Temperature Corrosion of Metals
By Andrew Dravnieks and Dr. Hugh J. McDonald 227

Principles of Writing Specifications for Metal Protective Paints
By W. W. Cranmer 234

The Role of Adsorption from Solution in Corrosion Inhibitor Action
By Dr. Norman Hackerman and Harold R. Schmidt 237

Destruction of An Admiralty Tube Bundle by Stress Corrosion in the Presence of Mercury
By B. B. Morton (Topic of the Month) 244

August

Page

Comparative Corrosion Resistance of Some Copper Alloy Condenser Tubes
By John R. Freeman, Jr., and A. W. Tracy 245

Practical Corrosion Control on Gas Transmission Lines
By G. R. Olson and H. V. Beezley 249

The Pulse Polarizer in Corrosion Technology
By Dr. Hugh J. McDonald and Glenn A. March 254
Discussion: F. I. LaQue, J. M. Bialosky, Page 350

Physical and Corrosion Characteristics of Lead in the Chemical Industry
By Kempton H. Roll 261

Application of Alloy Steel Linings to Tank Storing Corrosive Pulp Cooking Liquor
By H. A. Schmitz and M. A. Scheil (Topic of the Month) 271

September

Engineering Aspects of Cathodic Protection as Applied to Pipe Lines
By E. P. Doremus, G. L. Doremus and M. E. Parker, Jr. 273
Discussion: W. P. Noser, Page 351

Corrosion Resistance of Sprayed Metal Coatings
By Walter B. Meyer 282

An Investigation of Structural Steel Shop Coat Priming Paint
By S. C. Frye 288
Discussion: Dr. H. F. Haase, I. E. Boberg, E. W. Wallace, S. M. Gleser, Page 352

Cathodic Protection of Steel Piling in Sea Water
By H. A. Humble 292
Discussion: By G. C. Cox, Page 300. By C. P. Larrabee and L. F. LaQue, Page 301

Corrosion Testing Facilities at Kure Beach, North Carolina
By Ivy M. Parker 303

A Method for Activating Stainless Steel Specimens Prior to Corrosion Tests
By R. O. Bayer and E. A. Kachik 308

Discussion: Methods for Preventing Rust in Water Tanks
By J. L. Gilliland, Jr. 310

Multi-Layer Insulation Applications include Non-Capillary Glass Fabric
(Anonymous) (Topic of the Month) 313

October

The Use of Selenium Rectifiers as One-Way Valves In Electrolysis Drainage Wires
By W. D. Connon 315

Corrosion Resistance of Commercially Pure Titanium
By G. E. Hutchinson and P. H. Permar 319
Discussion: Fred W. Schmitz, Paul Gegner, Page 324; Dr. Mars Fontana, F. T. Wood, Jr., Tom R. Watson, B. B. Morton, Page 325

The Study of Corrosion in the Colleges
By Hugh J. McDonald 326

Electrochemical Behavior of Zinc and Steel in Aqueous Media
By R. B. Hoxeng and C. F. Prutton 330
Discussion: F. A. Prange, Page 338

Deterioration of Steel Sheet Pile Groins at Palm Beach, Florida
By Culbertson W. Ross 339

Technical Factors in Testing Pipe Line Coatings
By D. E. Stearns, M. W. Belson and R. H. Lee 342

A Note on the Effect of Variations of Exposed Area On Solution Potential and Corrosion Rate of Low Carbon Steel
By J. M. Bialosky 346
Discussion: J. Preston Engle, Page 349

High Speed Stress, Corrosion Tester
(Anonymous) (Topic of the Month) 354

DISCUSSIONS

Corrosion of Telephone Outside Plant Material: *C. J. Couy* 350

The Pulse Polarizer in Corrosion Technology:
F. L. LaQue, J. M. Bialosky 350

Engineering Aspects of Cathodic Protection as Applied to Pipe Lines: *W. P. Noser* 351

An Investigation of Structural Steel Shop Coat Priming Paint:
Dr. H. F. Haase, I. E. Boberg, E. W. Wallace, S. M. Gleser 352

Why Metals Corrode:
Norman Hackerman, Lyle R. Sheppard, W. F. Gross 352

November

Page

Corrosion Tests in the Processing of Soap and Fatty Acids
By W. Z. Friend and J. F. Mason, Jr. 355
Discussion: John L. McPherson, Page 367; M. A. Scheil, Page 368

Experience and Economic Benefits from Cathodic Protection on Gas Distribution Systems
By A. W. Peabody and C. L. Woody 369

Electrolytic Corrosion of Steel in Concrete
By G. M. Magee 378
Discussion: Sidney E. Trouard, Page 380; L. S. Brown, Page 381

Corrosion in Petroleum Processes Employing Aluminum Chloride
By R. S. Treseder and A. Wachter 383

Cooperative Corrosion Testing in the Wood Pulping Industry
By T. R. Gaulke and M. A. Scheil 392
Discussion: J. O. Shelby, Beaumont, Thomas, J. J. Heger, Page 401

Proper Bonding of Power Cable Sheath Guards Against Galvanic Corrosion
By W. D. Sanderson (Topic of the Month) 403

DISCUSSIONS

Erosion-Corrosion of Metals and Alloys: Harris Thompson, H. H. Bennett, James R. Harrison, Lewis P. Aker, H. O. Teeple 376

The Use of Selenium Rectifiers as One-Way Valves in Electrolysis Drainage Wires: M. M. Standring 377

December

The Behavior of Bituminous Pipe Coatings Under Bending Vibrational Stress
By Dr. W. Beck 405

Correlation Between Corrosion Survey Results and Actual Conditions as Determined Through 130 Miles Of Continuous Reconditioning
By I. B. Tietze 409
Discussion: R. J. Emerson, Page 414; J. C. Stirling, Page 415.

Cathodic Protection of Marine Tractor (Topic of the Month)
By Oliver Osborn 416

Marine Boiler Deterioration
By I. G. Slater and N. L. Parr 417

Corrosion Problems in the Pulp and Paper Industry
By Dr. Roy P. Whitney 435

Plant Corrosion in the Fatty Acid Industry
By R. J. Paul 439
Discussion: M. A. Scheil, Page 442.

Technical Committee Activities

Corrosion Problems in Handling and Processing Chemicals (April)
By M. G. Fontana viii

Extensive New Fields of Inquiry Are Considered by T. P. Committee 1 (May)
By W. F. Rogers xi

Interim Report Completed on Galvanic Anode Tests (June)
By M. C. Miller xi

Tests of Steel, Carbon and Graphite Anodes Now Are Under Way (July)
By M. A. Judah xi

Procedures Outlined For Cathodic Protection Minimum Current Data Experiments (Aug.)
By A. V. Smith xi

New Developments in Protective Coatings (Sept.)
By Kenneth Tator xv

Technical Information on Corrosion at Elevated Temperatures Sought (Oct.)
By M. A. Scheil xi

Improvement in Corrosion Inhibitors Science And Technology Is Aim of TP-9 (Dec.)
By A. Wachter xi

Technical Practices Committee Reports

(Sept.)
Sub-Committee T.P.-12—Electrical Grounding Practices (A-TP12) ... 311

Correlating Committee on Cathodic Protection

(Sept.)
Bulletin II—Cathodic Protection Notification Procedures 2
Bulletin IV—Joint Cathodic Protection Systems 7

TITLES, ALPHABETICALLY BY FIRST INDICATIVE WORD

A

Aluminum Valve Construction (Topic Of The Month) — Jan. 37
R. McFarland

Application of Alloy Steel Linings to Tanks Storing Corrosion Pulp Cooking Liquor (Topic Of The Month) — Aug. 271
H. A. Schmitz and M. A. Scheil

Attenuation Equations Applied to Cathodic Protection by Distributed Drainage — Jan. 32
E. P. Doremus, G. L. Doremus and M. E. Parker

B

Bearing Corrosion In Turbo-Generators (Errata) — Apr. 133
J. A. Ten Broeke

Behavior of Bituminous Pipe Coatings Under Bending Vibrational Stress — Dec. 405
D. W. Beck

Behavior of Hydrogen in Steel During and After Immersion in Acid — Jan. 1
Lawrence S. Darken and Rodney P. Smith

Building Organic Protective Coatings to Special Requirements — May 148
K. G. Compton

C

Case of Corrosion Involving Cinders — May 151
C. H. Thompson

Cathodic Protection Applied to Gas and Electric Utility Operations — Jan. 17
William J. Schreiner

Cathodic Protection of Marine Tractor (Topic of the Month) — Dec. 416
Oliver Osborn

Cathodic Protection of Steel Piling in Sea Water — Sept. 292
H. A. Humble

Combating Corrosion With Rubber Lining (Topic of the Month) — Mar. 98
R. McFarland

Comparative Corrosion Resistence of Some Copper Alloy Condenser Tubes — Aug. 245
John R. Freeman, Jr., and A. W. Tracy

Cooperative Approach to Electrolysis Problems — Mar. 79
Russell M. Lawall

Cooperative Corrosion Testing in the Wood Pulping Industry — Nov. 392
T. R. Gaulke and M. A. Scheil

Correlation Between Corrosion Survey Results and Actual Conditions as Determined through 130 Miles of Continuous Reconditioning — Dec. 409
I. B. Tietze

Corrosion in Petroleum Processes Employing Aluminum Chloride — Nov. 383
R. S. Treseder and A. Wachter

Corrosion in Sour Crude Storage Tanks (Topic of the Month) — May 168
Derk Holsteyn

Corrosion of Base Metal Contact Surfaces in the Telephone System (Topic of the Month) — Apr. 134
Anonymous

Corrosion of Telephone Outside Plant Material — June 194
K. G. Compton and A. Mendizza
Discussion: C. J. Couy, 350.

Corrosion, Passivity and Passivation from the Thermodynamic Point of View — Apr. 121
M. Pourbaix

Corrosion Problems in a Fluid Catalytic Cracking and Fractionating Unit — June 182
Nathan Schofer

Corrosion Problems in the Pulp and Paper Industry — Dec. 435
Dr. Roy P. Whitney

Corrosion Problems in Water Wells — Jan. 27
T. E. Larson

Corrosion Research in The Navy — July 203
Julius J. Harwood and Fred Schulman

Corrosion Resistance of Commercially Pure Titanium — Oct. 319
G. E. Hutchinson and P. H. Permar

Corrosion Resistance of Sprayed Metal Coatings — Sept. 282
Walter B. Meyer

Corrosion Testing Facilities at Kure Beach, North Carolina — Sept. 303
Ivy M. Parker

Corrosion Tests in the Processing of Soap and Fatty Acids — Nov. 355
W. Z. Friend and J. F. Mason, Jr.

Crude Still Overhead System Corrosion — May 135
A. F. Blumer

D

Destruction of an Admiralty Tube Bundle By Stress Corrosion in the Presence of Mercury (Topic of the Month) — July 224
B. B. Morton

Deterioration of Steel Sheet Pile Groins at Palm Beach, Fla. — Oct. 339
Culbertson W. Ross

Development of Pipe Line Coatings and Mechanical Application Methods — July 221
Stephen D. Day

E

Effect of Various Aqueous Solutions Upon the Reactions at Pure Iron Anodes and Cathodes
W. W. Kittelberger and A. C. Elm
Part I — (Apr.) 101
Part II — (May) 155
Errata — (June) 200

Electrochemical Behavior of Zinc and Steel in Aqueous Media — Oct. 330
H. B. Hoxeng and C. F. Prutton

Electrochemical Studies on Insulating Couplings For Underground Pipe and Cable Lines — June 175
W. Beck

Electrolytic Corrosion of Steel in Concrete — Nov. 378
G. M. Magee

Engineering Aspects of Cathodic Protection As Applied to Pipe Lines — Sept. 273
E. P. Doremus, G. L. Doremus, and M. E. Parker, Jr.
Discussion: W. P. Noser, 351.

Erosion-Corrosion of Metals and Alloys — June 182
M. G. Fontana and W. A. Luce
Discussion: Harris Thompson, H. H. Bennett, James R. Harrison, Lewis P. Aker, H. O. Teeple, 376.

Experience and Economic Benefits from Cathodic Protection on Gas Distribution Systems — Nov. 369
A. W. Peabody and C. L. Woody

Experience at Bagnell Dam to Prevent Corrosion of Underwater Steel and Iron — Jan. 25
Turner White, Jr.

G

Galvanic Action Between Lead, Worthite and Other Acid-Resistant Alloys in Sulfuric Acid — Feb. 39
W. E. Pratt and E. T. Collinsworth, Jr.

Galvanic Corrosion in Oil and Gas Well Fluids — Mar. 86
F. L. LaQue

Geographic Study of Deposits and Corrosion — Feb. 45
F. N. Alquist

H

High Speed Stress, Corrosion Tester (Topic of the Month) — Oct. 354
Anonymous

High Temperature Corrosion of Metals — July 227
Andrew Dravnieks and Dr. Hugh J. McDonald

I

Investigation of Structural Steel Shop Coat Priming Paint — Sept. 288
S. C. Frye
Discussion: H. F. Haase, I. E. Boberg, E. W. Wallace, S. M. Gleser, 352.

M

Marine Boiler Deterioration — Dec. 417
I. G. Slater and N. L. Parr

Marine Fouling and Boring Organisms, With Some Material on Corrosion — Apr. 113
J. L. Baughman

Method for Activating Stainless Steel Specimens Prior to Corrosion Tests — Sept. 308
R. O. Bayer and E. A. Kachik

Methods for Prevention of Rust In Water Tanks—A Preliminary Report — June 198
Fred Schumann
Discussion: J. L. Gilliland, Jr., 310.

Mitigation of Corrosion on City Gas Distribution Systems — Feb. 59
A. D. Simpson, Jr.

Multi-Layer Insulating Applications Include Non-Capillary Glass Fabric (Topic of the Month) — Sept. 313
Anonymous

N

Note on the Effect of Variations of Exposed Area on Solution Potential And Corrosion Rate of Low Carbon Steel — Oct. 346
J. M. Bialosky

O

Organic Linings for Chemical Equipment — Feb. 55
Kenneth Tator

P

Physical and Corrosion Characteristics of Lead in the Chemical Industry — Aug. 261
Kempton H. Ross

Plant Corrosion in the Fatty Acid Industry — Dec. 439
R. J. Paul

Practical Corrosion Control On Gas Transmission Lines — Aug. 249
G. R. Olson and H. V. Beezley

Principles of Writing Specifications for Metal Protective Paints — July 234
W. W. Cranmer

Proper Bonding of Power Cable Sheath Guards Against Galvanic Corrosion (Topic of the Month) — Nov. 403
W. D. Sanderson

Protection for Ship Hulls (Topic of the Month) — June 201
L. M. Mosher

Protective Films—Natural Formation on Aluminum and Its Alloys — Mar. 92
F. A. Champion

The Pulse Polarizer in Corrosion Technology — Aug. 254
Hugh J. McDonald and Glenn A. Marsh
Discussion: F. L. LaQue, J. M. Bialosky, 350.

Punched Cards for Filing Corrosion Test Results (Errata) — Feb. 54
Lorraine R. Voigt

R

Role of Adsorption From Solution in Corrosion Inhibitor Action — Jul. 237
Norman Hackerman and Harold R. Schmidt

S

Selected Bibliography on Salt Spray Testing (Discussion) — Feb. 254
L. M. Flaherty

Special Anodes for the Cathodic Protection of Water Tanks — July 217
A. L. Kimmel

Study of Corrosion in the Colleges — Oct. 326
Hugh J. McDonald

T

Technical Factors in Testing Pipe Line Coatings — Oct. 342
D. E. Stearns, M. W. Belson, and R. H. Lee

U

Use of Selenium Rectifiers as One-Way Valves in Electrolysis Drainage Wires — Oct. 315
W. D. Cannon
Discussion: J. M. Standring, 377.

Unusual Corrosion in High Pressure Boilers — Mar. 71
S. T. Powell and R. G. Von Lossberg

W

Why Metals Corrode — June 169
H. H. Uhlig
Discussion: Norman Hackerman, Lyle R. Sheppard, W. F. Gross, 352.

AUTHORS ALPHABETICALLY

A

AKER, LEWIS P. Nov.
Discussion—Erosion-Corrosion of Metals and Alloys 376

ALQUIST, F. N., DR. Feb.
A Geographic Study of Deposits and Corrosion 45

ANONYMOUS
Corrosion of Base Metal Contact Surfaces in the Telephone System (Topic of the Month) ..... (Apr.) 134
Multi-Layer Insulation Applications Include Non-Capillary Glass Fabric (Topic of the Month) ..... (Sept.) 313
High Speed Stress, Corrosion Tester (Topic of the Month) .. (Oct.) 354

B

BAUGHMAN, J. L. Apr.
Marine Fouling and Boring Organisms, With Some Material on Corrosion 113

BAYER, R. O. Sept.
A Method for Activating Stainless Steel Specimens Prior to Corrosion Tests. With E. A. Kachik 308

BECK, W., DR.
Electrochemical Studies on Insulating Couplings For Underground Pipe and Cable Lines ..... (June) 175
The Behavior of Bituminous Pipe Coatings Under Bending Vibrational Stress ..... (Dec.) 405

BEEZLEY, H. V. Aug.
Practical Corrosion Control on Gas Transmission Lines. With G. R. Olson 249

BELSON, M. W. Oct.
Technical Factors in Testing Pipe Line Coatings. With D. E. Stearns and R. H. Lee 324

BENNETT, H. H. Nov.
Discussion—Erosion-Corrosion of Metals and Alloys 376

BIALOSKY, J. M.
Note on the Effect of Variations of Exposed Area on Solution Potential and Corrosion Rate of Low Carbon Steel ..... (Oct.) 346
Discussion—The Pulse Polarizer in Corrosion Technology .. (Oct.) 350

BLUMER, A. F. May
Crude Still Overhead System Corrosion 135

BOBERG, I. E. Oct.
Discussion—An Investigation of Structural Steel Shop Coat Priming Paint 352

BROWN, L. S. Nov.
Discussion—Electrolytic Corrosion of Steel in Concrete 381

C

CHAMPION, F. A. Mar.
Protective Films-Natural Formation on Aluminum and Its Alloys .. 92

COLLINSWORTH, E. T., JR. Feb.
Galvanic Action Between Lead, Worthite and Other Acid-Resistant Alloys in Sulfuric Acid. With W. E. Pratt 39

COMPTON, K. G.
Building Organic Protective Coatings to Special Requirements ..... (May) 148
Corrosion of Telephone Outside Plant Material. With A. Mendizza—Discussion: 350 ..... (Jun.) 194

CANNON, W. D. Oct.
Use of Selenium Rectifiers as One-Way Valves in Electrolysis Drainage Wires 315
Discussion: 377

COUY, C. J. Oct.
Discussion—Corrosion of Telephone Outside Plant Material 350

COX, GEORGE C. Sept.
Discussion—Cathodic Protection of Steel Piling in Sea Water 300

CRANMER, W. W. July
Principles of Writing Specifications for Metal Protective Paints .. 234

D

DARKEN, LAWRENCE S. Jan.
Behavior of Hydrogen in Steel During and After Immersion in Acid. With Rodney P. Smith 1

DAY, STEPHEN D. July
Development of Pipe Line Coatings and Mechanical Application Methods 224

DOREMUS, E. P.
Attention Equations Applied to Cathodic Protection by Distributed Drainage. With G. L. Doremus, and M. E. Parker, Jr. (Jan.) 32
Engineering Aspects of Cathodic Protection as Applied to Pipe Lines. With G. L. Doremus and M. E. Parker, Jr. ..... (Sept.) 272
Discussion: 351.

DOREMUS, G. L.
Attenuation Equations Applied to Cathodic Protection by Distributed Drainage. With E. P. Doremus, and M. E. Parker, Jr. .. (Jan.) 32
Engineering Aspects of Cathodic Protection as Applied to Pipe Lines. With E. P. Doremus and M. E. Parker, Jr. ..... (Sept.) 273
Discussion: 351.

DRAVNIEKS, ANDREW Jul.
High Temperature Corrosion of Metals. With Hugh J. McDonald 227

E

ELM, A. C.
Effect of Various Aqueous Solutions Upon the Reactions at Pure Iron Anodes and Cathodes. With W. W. Kittelberger.
Part I ..... (Apr.) 101
Part II ..... (May) 155
Errata: P. 200.

EMERSON, R. J. Dec.
Discussion—Correlation Between Corrosion Survey Results and Actual Conditions As Determined Through 130 Miles of Continuous Reconditioning 414

ENGLE, J. PRESTON Oct.
Discussion—Note on the Effect of Variations of Exposed Area on Solution Potential and Corrosion Rate of Low Carbon Steel 349

F

FLAHERTY, L. M. Feb.
Discussion—Selected Bibliography on Salt Spray Testing. (See Vol. 4, No. 10, 492-500 (1948) Oct.) 54

FONTANA, M. G.
Erosion-Corrosion of Metals and Alloys. With W. A. Luce .. (Jun.) 189
Discussion: P. 376.
Discussion—Corrosion Resistance of Commercially Pure Titanium ..... (Oct.) 325

FREEMAN, JOHN R., JR. Aug.
Comparative Corrosion Resistance of Some Copper Alloy Condenser Tubes. With A. W. Tracy 245

FRIEND, W. Z. Nov.
Corrosion Tests in the Processing of Soap and Fatty Acids. With J. F. Mason, Jr. 355
Discussion: P. 367, 368.

FRYE, S. C. Sept.
An Investigation of Structural Steel Shop Coat Priming Paint 288
Discussion: P. 352.

G

GAULKE, T. R. Nov.
Cooperative Corrosion Testing in the Wood Pulp Industry 392
Discussion: P. 401.

GEGNER, PAUL Oct.
Discussion—Corrosion Resistance of Commercially Pure Titanium 324

GILLILAND, J. L., JR. Sept.
Discussion—Methods for Prevention of Rust in Water Tanks—A Preliminary Report 310

GLESER, S. M. Oct.
Discussion—An Investigation of Structural Steel Shop Coat Priming Paint 352

GROSS, W. F. Oct.
Discussion—Why Metals Corrode 352

H

HAASE, DR. H. F. Oct.
Discussion—An Investigation of Structural Steel Shop Coat Priming Paint 352

HACKERMAN, DR. NORMAN
The Role of Adsorption from Solution in Corrosion Inhibitor Action. With Harold R. Schmidt ..... (July) 237
Discussion—Why Metals Corrode ..... (Oct.) 352

HARRISON, JAMES R. Nov.
Discussion—Erosion-Corrosion of Metalsa nd Alloys ... 376
HARWOOD, JULIUS J. July
Corrosion Research in the Navy. With Fred Schulman ... 203
HEGER, J. J. Nov.
Discussion—Cooperative Corrosion Testing in the Wood Pulping Industry ... 401
HOLSTEYN, DERK May
Corrosion in Sour Crude Storage Tanks (Topic of Month) ... 168
HOXENG, R. B. Oct.
Electrochemical Behavior of Zinc and Steel in Aqueous Media. With C. F. Prutton ... 330
HUMBLE, H. A. Sept.
The Cathodic Protection of Steel Piling in Sea Water ... 292
Discussion: P. 301-302.
HUTCHINSON, G. E. Oct.
Corrosion Resistance of Commercially Pure Titanium. With P. H. Permar ... 319

K

KACHIK, E. A. Sept.
A Method for Activating Stainless Steel Specimens Prior to Corrosion Tests. With R. O. Bayer ... 308
KIMMEL, A. L. July
Special Anodes for the Cathodic Protection of Water Tanks ... 217
KITTELBERGER, W. W.
Effect of Various Aqueous Solutions Upon the Reactions at Pure Iron Anodes and Cathodes. With A. C. Elm.
Part I ... (Apr.) 101
Part II ... (May) 155
Errata P. 200.

L

LARRABEE, C. P. Sept.
Discussion—Cathodic Protection of Steel Piling in Sea Water ... 301
LARSON, T. E. Jan.
Corrosion Problems in Water Wells ... 27
LA QUE, F. L.
Galvanic Corrosion in Oil and Gas Well Fluids ... (May) 86
Discussion—Cathodic Protection of Steel Piling in Sea Water ... (Sept.) 301
Discussion—The Pulse Polarizer in Corrosion Technology ... (Oct.) 350
LAWALL, RUSSELL M. Mar.
Cooperative Approach to Electrolysis Problems ... 79
LEE, R. H. Oct.
Technical Factors in Testing Pipe Line Coatings. With D. E. Stearns and M. W. Belson ... 342
LUCE, W. A. June
Erosion-Corrosion of Metals and Alloys. With M. G. Fontana ... 189
Discussion: P. 376.

M

McDONALD, HUGH J.
High Temperature Corrosion of Metals. With Andrew Dravnieks ... (Jul.) 227
The Pulse Polarizer in Corrosion Technology. With Glenn A. Marsh ... (Aug.) 254
Discussion: P. 350.
Study of Corrosion in the Colleges ... (Oct.) 326
McFARLAND, R.
Aluminum Valve Construction. (Topic of the Month) ... (Jan.) 37
Combating Corrosion with Rubber Lining (Topic of the Month) ... (May) 98
McPHERSON, JOHN L. Nov.
Discussion—Corrosion Tests in the Processing of Soap and Fatty Acids ... 367
MAGEE, G. M. Nov.
Electrolytic Corrosion of Steel in Concrete ... 378
Discussion: 380, 381.
MARSH, GLENN A. Aug.
The Pulse Polarizer in Corrosion Technology. With Hugh J. McDonald ... 254
Discussion: P. 350.
MASON, J. F., JR. Nov.
Corrosion Tests in the Processing of Soap and Fatty Acids. With W. Z. Friend ... 355
Discussion: P. 367-368.
MENDIZZA, A. June
Corrosion of Telephone Outside Plant Material. With K. G. Compton ... 194
Discussion: P. 350.
MEYER, WALTER B. Sept.
Corrosion Resistance of Sprayed Metal Coatings ... 282
MORTON, B. B.
Destruction of an Admirality Tube Bundle by Stress Corrosion in The Presence of Mercury (Topic of Month) ... (July) 244
Discussion—Corrosion Resistance of Commercially Pure Titanium ... (Oct.) 325
MOSHER, L. M. June
Protection for Ship Hulls (Topic of the Month) ... 201

N

NOSER, W. P. Oct.
Discussion—Engineering Aspects of Cathodic Protection as Applied to Pipe Lines ... 351

O

OLSON, G. R. Aug.
Practical Corrosion Control on Gas Transmission Lines. With H. V. Beezley ... 249
OSBORN, OLIVER Dec.
Cathodic Protectiono f Marine Tractor (Topic of the Month) ... 416

P

PARKER, IVY M. Sept.
Corrosion Testing Facilities at Kure Beach, North Carolina ... 303
PARKER, M. E., JR.
Attenuation Equations Applied to Cathodic Protection by Distributed Drainage. With E. P. Doremus, and G. L. Doremus ... (Jan.) 32
Engineering Aspectso f Cathodic Protection as Applied ot Pipe Lines. With E. P. Doremus, and G. L. Doremus ... (Sept.) 273
Discussion: P. 351.
PARR, N. L. Dec.
Marine Boiler Deterioration. With I. G. Slater ... 417
PAUL, R. J. Dec.
Plant Corrosion in the Fatty Acid Industry ... 439
Discussion: P. 442
PEABODY, A. W. Nov.
Experience and Economic Benefits from Cathodic Protection on Gas Distribution Systems. With C. L. Woody ... 369
PERMAR, P. H. Oct.
Corrosion Resistance of Commercially Pure Titanium. With G. E. Hutchinson ... 319
POURBAIX, M. Apr.
Corrosion, Passivity and Passivation from the Thermodynamic Point of View ... 121
POWELL, S. T. Mar.
Unusual Corrosion in High Pressure Boilers. With Von Lossberg, R. G. ... 71
PRANGE, F. A. Oct.
Discussion—Electrochemical Behavior of Zinc and Steel in Aqueous Media ... 338
PRATT, W. E. Feb.
Galvanic Action Between Lead, Worthite and Other Acid-Resistant Alloys in Sulfuric Acid. With Collinsworth, E. T., Jr. ... 39
PRUTTON, C. F. Oct.
Electrochemical Behavior of Zinc and Steel in Aqueous Media. With R. B. Hoxeng ... 330

R

ROLL, KEMPTON H. Aug.
Physical and Corrosion Characteristics of Lead in the Chemical Industry ... 261
ROSS, CULBERTSON W. Oct.
Deterioration of Steel Sheet Pile Groins at Palm Beach, Florida ... 339

S

SANDERSON, W. D. Nov.
Proper Bonding of Power Cable Sheath Guards Against Galvanic Corrosion. (Topic of the Month) ... 403

SCHEIL, M. A.
Application of Alloy Steel Linings to Tanks Storing Corrosive Pulp Cooking Liquor. (Topic of the Month.) With H. A. Schmitz ... (Aug.) 271
Discussion—Corrosion Tests in the Processing of Soap and Fatty Acids. ... (Nov.) 368
Cooperative Corrosion Testing in the Wood Pulping Industry. With T. R. Gaulke ... (Nov.) 392
Discussion: P. 401
Discussion—Plant Corrosion in the Fatty Acid Industry ... (Dec.) 442

SCHMITZ, FRED W. Oct.
Discussion—Corrosion Resistance of Commercially Pure Titanium. 324

SCHMIDT, HAROLD R. Jul.
The Role of Adsorption from Solution in Corrosion Inhibitor Action. With Dr. Norman Hackerman ... 237

SCHMITZ, H. A. Aug.
Application of Alloy Steel Linings ot Tanks Storing Corrosive Pulp Cooking Liquor. (Topic of the Month.) With M. A. Scheil ... 271

SCHOFER, NATHAN June
Corrosion Problems in a Fluid Catalytic Cracking and Fractionating Unit ... 182

SCHREINER, WILLIAM J. Jan.
Cathodic Protection Applied to Gas and Electric Utility Operations 17

SCHULMAN, FRED Jul.
Corrosion Research in the Navy. With Julius J. Harwood ... 203

SCHUMANN, FRED Jun.
Methods for Prevention of Rust in Water Tanks—A Preliminary Report ... 198
Discussion: P. 310.

SHELBY, J. O. Nov.
Discussion—Cooperative Corrosion Testing in the Wood Pulping Industry ... 401

SHEPPARD, LYLE R. Oct.
Discussion—Why Metals Corrode ... 352

SIMPSON, A. D., JR. Feb.
Mitigation of Corrosion on City Gas Distribution Systems ... 59

SLATER, I. G. Dec.
Marine Boiler Deterioration. With N. L. Parr ... 417

SMITH, RODNEY P. Jan.
Behavior of Hydrogen in Steel During and After Immersion in Acid. With Lawrence S. Darken ... 1

STANDRING, J. M. Nov.
Discussion—The Use of Selenium Rectifiers as One-Way Valves in Electrolysis Drainage Wires ... 377

STEARNS, D. E. Oct.
Technical Factors in Testing Pipe Line Coatings. With M. W. Belson and R. H. Lee ... 324

STIRLING, J. C. Dec.
Discussion—Correlation Between Corrosion Survey Results and Actual Conditions as Determined Through 130 Miles of Continuous Reconditioning ... 415

T

TATOR, KENNETH Feb.
Organic Linings for Chemical Equipment ... 55

TEMPLE, H. O. Nov.
Discussion—Erosion-Corrosion of Metals and Alloys ... 376

TEN BROEKE, J. A. Apr.
Errata: Bearing Corrosion in Turbo-Generators (See Vol. 4, No. 12, P. 590 (1948) Dec.) ... 133

THOMAS, BEAUMONT Nov.
Discussion—Cooperative Corrosion Testing in the Wood Pulping Industry ... 401

THOMPSON, C. H. May
A Case of Corrosion Involving Cinders ... 151

THOMPSON, HARRIS Nov.
Discussion—Erosion-Corrosion of Metals and Alloys ... 376

TIETZE, I. B. Dec.
Correlation Between Corrosion Survey Results and Actual Conditions as Determined Through 130 Miles of Continuous Reconditioning ... 409
Discussion: P. 414, 415.

TRACY, A. W. Aug.
Comparative Corrosion Resistance of Some Copper Alloy Condenser Tubes. With John R. Freeman, Jr. ... 245

TRESEDER, R. S. Nov.
Corrosion in Petroleum Processes Employing Aluminum Chloride. With A. Wachter ... 383

TROUARD, SIDNEY E. Nov.
Discussion—Electrolytic Corrosion of Steel in Concrete ... 380

U

UHLIG, H. H. DR. Jun.
Why Metals Corrode ... 169
Discussion: P. 352.

V

VOIGT, LORRAINE R. Feb.
Errata: Punched Cards for Filing Corrosion Test Results ... 54
(See Vol. 4, No. 12, 582-589 (1948) Dec.)

VON LOSSBERG, R. G. Mar.
Unusual Corrosion in High Pressure Boilers. With S. T. Powell ... 71

W

WACHTER, A. Nov.
Corrosion in Petroleum Processes Employing Aluminum Chloride. With R. S. Treseder ... 383

WALLACE, E. W. Oct.
Discussion—An Investigation of Structural Steel Shop Coat Priming Paint ... 352

WATSON, TOM R. Oct.
Discussion—Corrosion Resistance of Commercially Pure Titanium 325

WHITE, TURNER, JR. Jan.
Experience at Bagnell Dam to Prevent Corrosion of Underwater Steel and Iron ... 25

WHITNEY, ROY P. Dec.
Corrosion Problems in the Pulp and Paper Industry ... 435

WOOD, F. T., JR. Oct.
Discussion—Corrosion Resistance of Commercially Pure Titantium 325

WOODY, C. L. Nov.
Experience and Economic Benefits from Cathodic Protection on Gas Distribution Systems. With A. W. Peabody ... 369

CORROSION ABSTRACTS—SUBJECTS, BY MONTHS, PAGES

Subject Index to Abstracts on Corrosion Literature—Volume 5, 1949

SUBJECT	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Atmospheric	..	9	..	8	..	10	..	10	..	14	..	13
Bearing	..	9	..	..	20	12	9	10	..	14	..	..
Cathodic Protection	..	9	..	12	..	12	..	12	..	16	..	14
Chemical	18	10	27	..	20	12	..	20	..	18	18	..
Coatings	5	12	22	14	24	16	9	12	16	20	..	..
Condensate Wells	..	15	..	..	18	..	..	25	..	..	..	..
Construction Material	21	16	27	19	28	27	..	25	..	23	20	16
Fundamentals	21	21	..	..	..	30	18	28	16	..	23	..
General	22	..	27	18	30	34	..	..	24	..	24	..
Inhibitors	23	20	..	..	31	36	..	29	28	24	30	..
Inspection	23	21	..	..	32	38	..	29	32	25	..	..
Metal Failure	24	..	30	20	..	38	..	29	37	25	..	..
Oil Well	..	15	..	..	..	..	..	..	..	..	..	..
Pipe Line	..	..	..	..	..	41	..	..	..	..	..	..
Refinery	..	..	..	20	..	41	..	32	..	26	30	..
Surface Preparation	..	..	30	22	..	42	..	32	..	26	32	18
Testing	..	18	34	..	33	43	..	36	..	..	..	20
Underground	..	..	35	24	..	..	..	38	..	..	..	..
Water	26	..	36	26	..	..	..	38	..	..	..	20

Vol. 5

Nov.
376
Apr.
2,
133
Nov.
g
401
May
151
Nov.
376
Dec.
i-
409
Aug.
n-
245
Nov.
e.
383
Nov.
380

Jun.
169

Feb.
54
Mar.
71

Nov.
le.
383
Oct.
352
Oct.
m 325
Jan.
er
25
Dec.
435
Oct.
m 325
Nov.
on
369

Dec.
13
14
16
18
20
20